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Docket No.: R2184.0075/P075

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Patent Application of:

Masajiro Iwasaki

Application No.: 09/559,255

Group Art Unit: 2672

Filed: April 27, 2000

Examiner: Motilewa A. Good-Johnson

For: PRESENTATION OF IMAGES

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REPLY BRIEF

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Dear Sir:

This Reply Brief, pursuant to 37 C.F.R. § 1.193(b)(1), is responsive to the Examiner's Answer dated June 2, 2004. A Request for Oral Hearing is being filed concurrently herewith.

Claim 1 recites the step of "dividing a feature space . . . into sub-spaces having a hierarchical structure." In contrast to the claimed invention, Jain ranks images according to selected criteria, and then displays the images such that they appear to be ordered according to the rankings in a three-dimensional space. If one of the criteria is "red," for example, then the images whose red characteristics are similar to a referent

are shown near the origin. Images whose red characteristics are not similar to the referent are shown far from the origin. In the Jain system, the individual images are merely located or positioned along the "red" axis.

In contrast to the claimed invention, Jain does not "divid[e] a feature space into sub-<u>spaces</u>." At most, Jain locates or positions discrete features within a feature space. Jain does not divide any feature space into sub-<u>spaces</u>, much less divide a feature space into sub-spaces having a hierarchical structure, as recited in claim 1. The portions of the Jain specification cited by the Examiner, including column 6, lines 30-44, and column 9, lines 35-46, suggest nothing to the contrary.

Moreover, claim 1 recites the step of "generating a tree structure <u>having the sub-spaces as nodes</u> thereof." The Examiner contends that the tree structure of claim 1 is shown in Figs. 2A and 2B of Jain: "It is . . . the Examiner interpretation that the figures 2A and 2B represent a tree structure" (Examiner's Answer, page 7). This contention makes no sense whatsoever. Figs. 2A and 2B of Jain are diagrams of the portion of the display interface (the left-side portion of Fig. 1) that is used during the selection of the three criteria (Jain, column 17, lines 46-50). The diagrams relate to the user-driven selection of the three criteria, such as "red," "blue" and "green," by which the images are ranked. The connected icons shown in Figs. 2A and 2B represent the criteria (the so-called "measures and logic operators") (column 24, lines 50-53).

Figs. 2A and 2B do not show the results of a query, but only the selection of the three criteria. The results of the query are shown, for example, in Fig. 3. (Jain, column 24, lines 64-67, and column 25, lines 38-45.) Appellant respectfully submits that Figs. 2A and 2B have nothing to do with anything for which they are cited by the

Examiner. None of the elements shown in Figs. 2A and 2B correspond to anything that might be considered the "sub-spaces" or "nodes" of claim 1.

The Examiner argues in the alternative that "associating an object . . . as a plot along an axis constitutes a tree structure" (Examiner's Answer, page 7). In this regard, please note that claim 1 does not merely recite a "tree structure." Claim 1 recites the step of generating a "tree structure having . . . nodes." Jain does not disclose or suggest the tree structure having plural nodes of claim 1. There is nothing in the Jain rankings that could be considered the claimed nodes of a tree structure, much less nodes that correspond to sub-spaces divided from a feature space, as recited in claim 1.

Moreover, claim 1 recites the step of "dividing a display space into . . . spaces corresponding to the respective sub-spaces by taking into account the tree structure." As noted, Jain does not have the recited tree structure to take into account, nor does it have the recited sub-spaces. There are multiple important features of the claimed invention that are not disclosed or suggested by Jain.

Dependent claim 2 recites, among other things, the step of generating clusters having a circle shape. The Examiner contends that the recited <u>plural</u> "clusters having a <u>circle</u> shape" are shown in Figs. 4-9, and column 11, lines 35-38, of Jain. The referenced drawings do not, however, show the recited plural clusters, much less the step of generating the recited circular clusters, nor is there anything in column 11, lines 35-38, of Jain to suggest the recited step of generating clusters having a circle shape.

The Examiner's argument with respect to claim 3 is not understood. Jain appears to be unrelated to the subject matter of claim 3. The portions of the Jain

specification cited on page 7 of the Examiner's Answer have little or nothing to do with the actual language of claim 3. Note that, according to claim 3, the increased radius is obtained at a point where there are multiple clusters, each of which contains the selected image feature.

With respect to claim 4, the Examiner attempts to equate "node" with selected criteria. In Jain, however, there is only one selected criteria for each ranking of images along any one dimension, whereas claim 1, from which claim 4 depends, recites a tree structure that has plural nodes, and the recited nodes are the plural sub-spaces of a single feature space. Moreover, claim 4 refers to at least one node "immediately under the given node in the tree structure." Jain fails to disclose or suggest the nodes of claim 4, and this is just one of several important reasons why the rejection of claim 4 should be reversed.

With respect to claim 5, please note that Jain fails to disclose or suggest the divided "spaces" of claim 4, and therefore cannot suggest the extra spaces of claim 5, which are "between" the divided spaces.

Likewise with respect to claim 6, Jain fails to disclose or suggest the recited "divided <u>spaces</u>." Moreover, Jain nowhere discloses or suggests the sizes of any such divided "spaces" should be "proportional to <u>numbers</u> of image features." On page 8 of the Examiner's Answer, the argument is made that "the images may be equidistantly separated along an axis by [which] the image distribution is observed." In the Jain system, the "equidistantly separated" images are located along the bottom axis of the display "box" of Fig. 11 (column 27, lines 39-60). Appellant does not understand what, if anything, the Examiner's argument has to do with the actual language of claim 6,

which says that "the respective nodes have sizes proportional to numbers of image features belonging to the respective nodes."

The Examiner's argument with respect to the rejection of claim 7 is similar to the one for claim 6 (Examiner's Answer, page 9, first paragraph). As noted in the main Brief, Jain fails to disclose or suggest the divided spaces of claim 7, which have "sizes proportional to sizes of the sub-spaces corresponding to the respective nodes." The rejection of claim 7 should be reversed.

Dependent claim 8 recites aspects of both claims 6 and 7. The Examiner's arguments with respect to claim 8 (Examiner's Answer, page 9, lines 8-11) are not connected to the actual language of claim 8. Jain fails to disclose or suggest all the limitations of claims 1 and 4, from which claim 8 depends, and Jain also fails to disclose or suggest the recited step of "adjusting sizes of the divided spaces such that the sizes . . . reflect numbers of image features belonging to the respective nodes <u>and</u> sizes of the sub-spaces corresponding to the respective nodes."

With respect to claims 9-16, contrary to the Examiner's Answer (page 9, third paragraph), Appellant has not argued that Jain "fails to disclose computer-readable medium having a program embodied." Without conceding any such argument, Appellant notes it would be unnecessary to make the argument at this stage, where the reference fails to suggest the program code limitations of claims 9-16. Appellant respectfully submits that the Examiner's Answer raises no substantial argument to support the rejection of claims 9-16. The rejection of claims 9-16 should be reversed.

Likewise with respect to claims 17 and 18, contrary to the Examiner's Answer (page 10), Appellant has not argued that Jain "fails to disclose a display device that has a memory and a CPU," nor has Appellant argued that Jain "fails to disclose computer-readable medium having a program to create a display screen image for displaying items that resemble each other." Without conceding any such arguments, Appellant notes it would be unnecessary to make the arguments at this stage, where Jain fails to suggest other important limitations of the claims.

The rejection of claims 1-18 should be reversed, for at least the reasons offered above, and in the main Brief.

Dated: August 2, 2004

Respectfully submitted,

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